Further studies that are in progress are also briefly outlined to indicate the potential of developing these compounds into biopharmaceuticals.

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66.013

Evaluation Results of 21th Iranian External Quality Assessment Schemes (EQAS) of Microbiology laboratories in 2007

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Objective: The aim of this study was to determine ability of Iranian microbiology laboratories for identification and susceptibility testing of two unknown microorganisms.

Methods: In Feb 2007 21th run of proficiency testing of Iranian microbiology laboratories carried out by Iranian health reference laboratories. In this survey two unknown microorganisms including *Salmonella Paratyphi* B and *Staphylococcus aureus* were submitted to 1305 microbiology laboratories. We asked all laboratories to identify each microorganism and performance of susceptibility testing just for *S. paratyphi* B against tetracycline, nalidixic acid, ciprofloxacin, ampicillin and trimethoprim-sulfamethoxazole. Scoring of results performed according to WHO criteria. The maximum score of point for identification of each bacterium was 3 score and 5 score for susceptibility testing (each antibiotic one score). The results were analyzed by SPSS.

Results: Of 1305 laboratories only 1122 (.86%) laboratories participated in our survey and 183 (14%) laboratories did not participated in this study. Of 1122 laboratories, 523 (46.6%) laboratories identified *S. paratyphi* B correctly and obtained maximum 3 score of points and 488 (43.5%) laboratories partially identified this microorganism (1—2.5 score) and 111 (9.9%) laboratories misidentified this microorganism. The mean score was 2.6. The results of susceptibility testing of *S. paratyphi* B were relatively satisfied for nalidixic acid, ciprofloxacin and trimethoprim-sulfamethoxazole. However the results of susceptibility testing for tetracycline and ampicillin were unsatisfied and only the results of 578 (52.5%) of 1122 were correct for tetracycline and 558 (49.7%) of laboratories reported correct answer for ampicillin. The mean of score for susceptibility testing was 3.88. Regarding to identification *Staphylococus aureus* of 1122 laboratories 767 (68.4%) identified this organism correctly and obtained maximum three score, 211 (18.8%) laboratories reported partially correct answer (1—2.5 score) and 114 (12.8%) laboratories could not identified *S.aureus*. in total mean score for identification of this microorganism was 2.3.

Conclusions: This study revealed that the majority of microbiology laboratories were able for identification of *S. parathyphi* B and *S. aureus*. Nearly 50% of laboratories produced incorrect susceptibility testing answer according to *S. paratyphi* B for tetracycline and ampicillin.

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66.014

Multicenter Evaluation of Tigecycline Activity in India: Report from the SENTRY Antimicrobial Surveillance Program (2006)

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Background: Tigecycline, the initial representative of the glycylcyclines, presents a therapy option for emerging multidrug-resistant (MDR) pathogens. India, a nation rarely monitored in global surveillance programs, appears in need of agents active against MDR isolates of Enterobacteriaceae (ESBLs), *Acinetobacters* (carbapenem-resistant) and Gram-positive cocci (MRSA, VRE). Numerous sites were sampled using reference susceptibility methods.

Methods: Eleven sites forwarded 1,714 strains to a regional monitor (WCH, Adelaide, Australia) that susceptibility tested 27 antimicrobials by CLSI methods (M7-A7, 2006). Identifications were confirmed and interpretive/screening criteria were also by CLSI guidelines (M100-S18, 2008), except for tigecycline where United States - Food and Drug Administration breakpoints were applied. Major pathogens were: *S. aureus* (250), coagulase-negative staphylococci (CoNS; 228), enterococci (93), *Enterobacters* (76), *E. coli* (217), *K. pneumoniae* (268), *Salmonella* spp. (55) and *Acinetobacters* (108).

Results: Tigecycline was active against 98—100% of indicated/tabulated species, lowest for *Acinetobacter* spp. *S. aureus* tigecycline MIC_{90} values were not influenced by oxacillin susceptibility patterns (0.25 mg/L; 100% S). Increased resistance patterns noted were: tetracycline-resistant (4—100%; average 53%), AmpC, ESBL- and fluoroquinolone resistance in Enterobacteriaceae (8—70, 14—78, 1—91%, respectively), VRE (1%), MRSA (36%) and *Acinetobacters* carbapenem-resistant (38%). *S. typhi* and *S. paratyphi* were common (tigecycline MIC_{90}, 0.5 mg/L), and 84% were nalidixic acid-resistant. Carbapenem resistance in Enterobacteriaceae (1—7%) was consistent with harbouring metallo-β-lactamases; confirmed by PCR testing.

Conclusions: Although MDR rates across Gram-positive and -negative species (particularly among enteric bacilli and *Acinetobacters*) was high in India, tigecycline remained active (MIC_{90}, 1 mg/L overall) against these MDR strains. Tigecycline exhibited promising spectrum/potency exceeding currently available agents against sampled isolates from India.

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